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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,929	03/15/2001	Dong-Youl Lee	P56255	3658

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EXAMINER
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BALBAN, SIMEON M

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<p><b>Application No.</b></p> <p>09/805,929</p>	<p><b>Applicant(s)</b></p> <p>LEE, DONG-YOUL</p>	
	<p><b>Examiner</b></p> <p>Simeon Marc Balban</p>	<p><b>Art Unit</b></p> <p>2686</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |                                                                                                              |                                                                             |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the information disclosure statement is being considered by the examiner.

### *Priority*

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/805,929, filed on 3/15/2001.

### *Specification*

2. The disclosure is objected to because of the following informalities:

In **all** instances where the possessive case of the apostrophe (') is employed an equal sign (=) appears (i.e. user=s should be user's, see page 12 line 2 subscriber=s).  
Correction is required. See MPEP § 608.01(b).

### *Double Patenting*

4. Applicant is advised that should **claim 8** be found allowable, **claim 9** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing

one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

5. Applicant is advised that should **claim 10** be found allowable, **claim 11** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1, 2, 8, 9, 12, 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Widergen et al. (U.S. Patent Number 5,890,064).

Regarding **claim 1**, Widergen discloses a call originating service method in a public (140)/private (142) common mobile communication system, comprising the steps of: determining whether the call origination message is for the public mobile communication service or the private mobile communication service upon receipt of an origination call message from a mobile station through a BTS (114) which provides both public and private mobile communication services (figures 1, column 8 lines 29 – 42),

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column 12 lines 32 - 67); and transmitting the call origination message to either a public mobile communications network (140) or a private mobile communication network (142) based on the determination results (see column 8 lines 48 - 52).

Regarding **claim 2**, Widergen discloses a call origination method in a public/private common mobile communication service (see **claim 1**), wherein the determination step comprises the steps of: determining whether the mobile station is registered for the private mobile communication service (see column 7 lines 39 – 46); and determining whether the mobile station is part of the private mobile communication network (see column 8 lines 29 – 42 and lines 48 - 52).

Regarding **claim 8** and **claim 9**, Widergen discloses a call origination method in a public/private common mobile communication service (see **claim 2**), wherein the step of determining whether the mobile station is registered for the private mobile communication service comprises the step of consulting a visitor location register (VLR) (226) of a call manager (220) inside a public /private common cell area (see figure 2, column 7 lines 16 – 21).

Regarding **claim 12**, Widergen discloses a call origination method in a public/private common mobile communication service (see **claim 2**), wherein said call is transmitted to a public communications network, if either the mobile station is not registered for private mobile communication service, or the transmitting number is not a private mobile communications network number (feature of call being requested over interface A and CNE indicates PLMN as the called network, see figure 1 and column 7 lines 12 - 15).

Regarding **claim 14**, Widergen discloses a call origination method in a public/private common mobile communication service (see **claim 2**), wherein said call is handled by said private communications network only if both said mobile station is registered with said private mobile communication service, and said transmitting number is a private mobile communication network number (see figures 1, column 7 line 4 - 21).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 3 - 7, 10, 11, 13, 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Widergen et al. in view of Lu et al. (U.S. Patent Number 5,999,813).

Regarding **claim 3**, Widergen discloses a call originating service method in a mobile communication system (100), the method comprising the steps of: providing a communication service apparatus which performs public and private mobile communications services with a private BTS (126) connected to at least one of a plurality of base station controllers (BSCs) (124) belonging to a public mobile communication system, connected to corresponding ones of a plurality of Mobile Switching Centers (MSC's) (112) (see figure 1 and column 3 line 59 – column 4 line 10);

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determining in the communication service apparatus (124) whether the call origination message is for the public mobile communication service or the private mobile communication service upon receipt of a call origination message transmitted from the mobile station through the private BTS (126) (see figures 1 and 2 and column 12 lines 3 - 7);

and transmitting the call origination message to either a MSC (112) connected to the private BTS (126) or a private BSC (124) for the private mobile communication service according to the determination results (see figures 1 and 2 and column 12 lines 8 - 29). However, Widergen fails to specifically disclose the use of base station controllers (BSCs) as an interface between the mobile switching centers (MSC's) and the base station Transceiver Subsystem (BTS). However, the concept of having BSC's in a wireless system is very well known in the art, as taught by Lu.

Lu discloses a private/public wireless system that employs a BSC connected to a MSC and BTS (figure 7).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the private/public wireless system of Widergen, with the wireless network architecture of Lu that employs BSC's, for the purpose of controlling BTS's.

Regarding **claim 4**, Widergen and Lu disclose everything as applied above to **claims 2 and 3**.

Regarding **claim 5**, Widergen and Lu disclose a mobile communication system (100), comprising; a private BTS (126) connected to one of a plurality of MSCs (112)

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belonging to a public mobile communication system, said public communications system comprising a plurality of MSCs (112), each one of said MSCs connected to a corresponding BTS (114); and a router (124) apparatus for, upon receipt of a call origination message transmitted from the mobile station through the private BTS (see figure 1), determining whether the call origination message is for the public mobile communication service or the private mobile communication service (see figures 1 and 2 and column 7 lines 4 - 21), and transmitting the call origination message to either a MSC (112) connected to the private BTS (126) or a private BSC (124) for the private mobile communication service according to the determination results (see figure 4 and column 5 lines 39 - 59). However, Widergen fails to specifically disclose the use of base station controllers (BSCs) as an interface between the mobile switching centers (MSC's) and the base station Transceiver Subsystem (BTS). However, the concept of having BSC's in a wireless system was well known in the art, as taught by Lu.

In the same field of endeavor, Lu discloses a private/public wireless system that employs a BSC (figure 7).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the private/public wireless system of Widergen, with the wireless network architecture of Lu that employs BSC's, for the purpose of controlling BTS's.

Regarding **claim 6**, Widergen and Lu disclose a mobile communication system (100) (see **claim 5**), wherein said router apparatus (124) comprises a call manager (220) that determines whether a call originating from a mobile station is destined to be



handled by a public mobile communication system or a private mobile communication system (see figure 2 and column 7 lines 39 - 49).

Regarding **claim 7**, Widergen further discloses a mobile communication system (100) having a call manager (124/220) comprising a data communications interface (222) for controlling the interface to the call manager (220); a private base station controller (216), a private visitor location register (210); a private base station transceiver subsystem message router for requesting the private visitor location register (226) whether a mobile station is registered in the private mobile communication service and transmits a call message to said private base station controller (124); and a private mobile switching center for recording on the private visitor location register (210) the existence of the transmitting call and forms a telephone line if the mobile station responds (see figure 3 and column 13 lines 34 – 66).

Regarding **claim 10** and **claim 11**, Widergen further discloses a call origination method in a public/private common mobile communication service, wherein the step of determining whether the mobile station is registered for the private mobile communication service comprises the step of consulting a visitor location register (VLR) (226) of a call manager (220) inside a public/private common cell area (see figure 2 and column 13 lines 43 - 57).

Regarding **claim 13**, Widergen further discloses a call origination method in a public/private common mobile communication service, wherein said call is transmitted to a public communications network, if either the mobile station is not registered for private mobile communication service, or the transmitting number is not a private mobile

communications network number (feature of call being requested over interface A and CNE indicates PLMN as the called network, see figure 1 and column 7 lines 12 - 15).

Regarding **claim 15**, Widergen further discloses a call origination method in a public/private common mobile communication service, wherein said call is handled by said private communications network only if both said mobile station is registered with said private mobile communication service and said transmitting number is a private mobile communication network number (feature of call being requested over interface A and CNE indicates PLMN as the called network, see figure 1 and column 7 lines 12 - 15).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simeon Marc Balban whose telephone number is (703) 305-8731. The examiner can normally be reached on M - F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D Banks - Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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